ELSEVIER

Journal of Alloys and Compounds 257 (1997) 322

Journal of ALLOYS AND COMPOUNDS

Author Index of Volume 257

Akabori, M., 268
Akiba, E., 150
Aldinger, F., 104
Amirkhanov, V., 182
Atsumi, T., 161
Auffermann, G., 75
Avignant, D., 65
Avramescu, A., 285

Baburaj, E.G., 146
Bahadur, D., 57
Baran, S., 5
Barmak, K., 211
Berry, F.J., 201
Bialic, D., 49
Biebricher, M., 285
Bououdina, M., 82
Braun, H.F., 205
Bronger, W., 75
Brück, E., 36
Buhl, J.-C., 168
Burri, G., 253
Buschow, K.H.J., 36

Çelebi, S., 14
Chen, C., 19
Chen, N., 266
Chen, Y., 156
Chen, Z.Y., 46
Cheng, Z.-h., 1

de Rango, P., 82
Dehadraya, J.V., 313
Ding, Y.f., 5
Durussel, P., 253

Fechtelkord, M., 168
Feschotte, P., 213, 253
Feufel, H., 234
Filoti, G., 285
Franke, H., 285
Froes, F.H. (Sam), 146
Fruchart, D., 82, 150

Gachon, J.C., 215
Galez, P., 215
Gaune-Escard, M., 134
Gałdecka, E., 182
Gałdecki, Z., 182
Gencer, A., 14
Gibson, J.K., 268
Giester, G., 175
Gong, H.-y., 1
Grgur, B.N., 245
Grünberger, W., 293
Guo, Y., 69

Haire, R.G., 268
Hasenberg, S., 75
Hinz, D., 293
Hubert, K.T., 146
Huskowska, E., 182

Ijjalli, I., 196
Ishikawa, M., 23
Isnard, O., 150
Ivanov, V., 5

Jakšić, M.M., 245
Jiménez-Garay, R., 259
Jorda, J.L., 215

Kadir, K., 115
Kamegashira, N., 161
Kanatzidis, M.G., 137
Khairulin, R.A., 62
Kirchner, A., 293
Kleppa, O.J., 227
Kmieć, R., 49
Kobayashi, T., 278
Kolitsch, U., 105
Krstajić, N.V., 245
Kruk, R., 49
Kuncser, V., 285

Lakshmana Rao, J., 96
Latroche, M., 302
Leciejewicz, J., 5
Legendziewicz, J., 182
Liang, B., 1
Liang, J., 69
Lomello-Tafin, M., 215
Lundström, T., 91
Luo, H.M., 46

Mahiou, R., 65
Makino, Y., 122
Malaman, B., 30, 196
Manfrinetti, P., 224
Matsuyama, M., 278
Meschel, S.V., 227
Michaelsen, C., 211
Miraglia, S., 150
Mukerjee, S.K., 313
Müller, K.-H., 293
Müller, M., 205
Murali, A., 96
Muro, Y., 23

Nakagawa, M., 306
Nigam, A.K., 57
Nomura, K., 150
Norlidah, M.N., 30

Ogawa, T., 268
Ohta, M., 306
Okamoto, Y., 268
Oleksyn, O., 36
Olofsson, M., 91
Ouchida, R., 306

Öztürk, A., 14

Palenzona, A., 224
Park, Y., 137
Percheron-Guégan, A., 302
Pietsch, H.-H.E., 168
Podgorsek, R., 285
Prasad, S., 57

Qian, Y.T., 46

Radha, S., 57
Rama Rao, G.A., 313
Rao, G., 69
Ressouche, E., 30
Rodríguez-Carvajal, J., 36
Roffe, M., 128
Rycerz, L., 134

Sakai, T., 115
Schmid, J., 234
Schmidt, H., 205
Schobinger-Papamantellos, P., 36
Schuller, F., 234
Schultz, L., 293
Seifert, H.J., 104, 128
Shen, B.-g., 1
Shiraishi, T., 306
Shi, L., 46
Singh, K., 57
Sommer, F., 234
Song, M., 273
Song, X., 273
Sood, D.D., 313
Soubeyroux, J.L., 82
Stankus, S.V., 62
Stüsser, N., 5
Sun, D., 302
Szytula, A., 5

Taguchi, S., 278
Takagi, R., 134
Takeda, N., 23
Tang, N., 19
Tang, W., 69
Thied, R.C., 201
Tomala, K., 49
Tyagel'sky, P.V., 62

Uehara, I., 115
Unfried, P., 175

Vaidya, V.N., 313
Vázquez, J., 259
Venkata Subbaiah, A., 96
Venturini, G., 30, 196
Venugopal, V., 313
Villares, P., 259
Vojnović, M.V., 245

Waclawska, I., 191
Wang, F.-w., 1
Wang, Q., 19
Wang, X., 273
Wang, Y.-g., 19
Watanabe, K., 278
Welter, R., 196

Yan, A., 273
Yang, F., 19

Zahir, M., 65
Žák, Z., 175
Zakaria, D., 65
Zdujić, M., 245
Zeng, W., 266
Zhang, J.-x., 1
Zhang, S.-y., 1
Zhang, X., 69
Zhao, Y., 69
Zhou, G.E., 46
Zygmunt, A., 5

Elsevier Science S.A.

ELSEVIER

Journal of Alloys and Compounds 257 (1997) 322

Journal of ALLOYS AND COMPOUNDS

Author Index of Volume 257

Akabori, M., 268
Akiba, E., 150
Aldinger, F., 104
Amirkhanov, V., 182
Atsumi, T., 161
Auffermann, G., 75
Avignant, D., 65
Avramescu, A., 285

Baburaj, E.G., 146
Bahadur, D., 57
Baran, S., 5
Barmak, K., 211
Berry, F.J., 201
Bialic, D., 49
Biebricher, M., 285
Bououdina, M., 82
Braun, H.F., 205
Bronger, W., 75
Brück, E., 36
Buhl, J.-C., 168
Burri, G., 253
Buschow, K.H.J., 36

Çelebi, S., 14
Chen, C., 19
Chen, N., 266
Chen, Y., 156
Chen, Z.Y., 46
Cheng, Z.-h., 1

de Rango, P., 82
Dehadraya, J.V., 313
Ding, Y.f., 5
Durussel, P., 253

Fechtelkord, M., 168
Feschotte, P., 213, 253
Feufel, H., 234
Filoti, G., 285
Franke, H., 285
Froes, F.H. (Sam), 146
Fruchart, D., 82, 150

Gachon, J.C., 215
Galez, P., 215
Gaune-Escard, M., 134
Gałdecka, E., 182
Gałdecki, Z., 182
Gencer, A., 14
Gibson, J.K., 268
Giester, G., 175
Gong, H.-y., 1
Grgur, B.N., 245
Grünberger, W., 293
Guo, Y., 69

Haire, R.G., 268
Hasenberg, S., 75
Hinz, D., 293
Hubert, K.T., 146
Huskowska, E., 182

Ijjalli, I., 196
Ishikawa, M., 23
Isnard, O., 150
Ivanov, V., 5

Jakšić, M.M., 245
Jiménez-Garay, R., 259
Jorda, J.L., 215

Kadir, K., 115
Kamegashira, N., 161
Kanatzidis, M.G., 137
Khairulin, R.A., 62
Kirchner, A., 293
Kleppa, O.J., 227
Kmieć, R., 49
Kobayashi, T., 278
Kolitsch, U., 105
Krstajić, N.V., 245
Kruk, R., 49
Kuncser, V., 285

Lakshmana Rao, J., 96
Latroche, M., 302
Leciejewicz, J., 5
Legendziewicz, J., 182
Liang, B., 1
Liang, J., 69
Lomello-Tafin, M., 215
Lundström, T., 91
Luo, H.M., 46

Mahiou, R., 65
Makino, Y., 122
Malaman, B., 30, 196
Manfrinetti, P., 224
Matsuyama, M., 278
Meschel, S.V., 227
Michaelsen, C., 211
Miraglia, S., 150
Mukerjee, S.K., 313
Müller, K.-H., 293
Müller, M., 205
Murali, A., 96
Muro, Y., 23

Nakagawa, M., 306
Nigam, A.K., 57
Nomura, K., 150
Norlidah, M.N., 30

Ogawa, T., 268
Ohta, M., 306
Okamoto, Y., 268
Oleksyn, O., 36
Olofsson, M., 91
Ouchida, R., 306

Öztürk, A., 14

Palenzona, A., 224
Park, Y., 137
Percheron-Guégan, A., 302
Pietsch, H.-H.E., 168
Podgorsek, R., 285
Prasad, S., 57

Qian, Y.T., 46

Radha, S., 57
Rama Rao, G.A., 313
Rao, G., 69
Ressouche, E., 30
Rodríguez-Carvajal, J., 36
Roffe, M., 128
Rycerz, L., 134

Sakai, T., 115
Schmid, J., 234
Schmidt, H., 205
Schobinger-Papamantellos, P., 36
Schuller, F., 234
Schultz, L., 293
Seifert, H.J., 104, 128
Shen, B.-g., 1
Shiraishi, T., 306
Shi, L., 46
Singh, K., 57
Sommer, F., 234
Song, M., 273
Song, X., 273
Sood, D.D., 313
Soubeyroux, J.L., 82
Stankus, S.V., 62
Stüsser, N., 5
Sun, D., 302
Szytula, A., 5

Taguchi, S., 278
Takagi, R., 134
Takeda, N., 23
Tang, N., 19
Tang, W., 69
Thied, R.C., 201
Tomala, K., 49
Tyagel'sky, P.V., 62

Uehara, I., 115
Unfried, P., 175

Vaidya, V.N., 313
Vázquez, J., 259
Venkata Subbaiah, A., 96
Venturini, G., 30, 196
Venugopal, V., 313
Villares, P., 259
Vojnović, M.V., 245

Waclawska, I., 191
Wang, F.-w., 1
Wang, Q., 19
Wang, X., 273
Wang, Y.-g., 19
Watanabe, K., 278
Welter, R., 196

Yan, A., 273
Yang, F., 19

Zahir, M., 65
Žák, Z., 175
Zakaria, D., 65
Zdujić, M., 245
Zeng, W., 266
Zhang, J.-x., 1
Zhang, S.-y., 1
Zhang, X., 69
Zhao, Y., 69
Zhou, G.E., 46
Zygmunt, A., 5

Elsevier Science S.A.

ELSEVIER

Journal of Alloys and Compounds 257 (1997) 323–328

Journal of ALLOYS AND COMPOUNDS

Subject Index of Volume 257

Absorption
crystal structure and optical properties of Ln(III) octahedral complexes with hexamethylphosphortriamide; $[Ln(HMPA)_6](ClO_4)_3$ 182
Activation
activation behaviour of mechanically Ni-coated Zr-based Laves phase hydride electrode 302
Additives
magnetic and microstructural properties of sintered FeNdB-based magnets with W, Mo and Nb additions 273
Age-hardening
effects of small silver addition to AuCu on the AuCu I ordering process and age-hardening behaviours 306
Aluminosilicate matrix
the formation of unusually twofold coordinated boron in a sodalite matrix 168
Anti-ferromagnetism
magnetism of ternary stannides RCuSn (R=Gd–Er) 5
Antiphase boundary
effects of small silver addition to AuCu on the AuCu I ordering process and age-hardening behaviours 306
Artificial neural network
artificial neural network method applied to enthalpy of fusion of transition metals 266
Association model calculation
calorimetric study of ternary liquid Al–La–Ni alloys 234

Backward extrusion
hot deformation of nanocrystalline Nd–Fe–B alloys 293
Ball-milling
activation behaviour of mechanically Ni-coated Zr-based Laves phase hydride electrode 302
Band parameters
bond character and structural classification of inorganic carbon compounds based on the band parameters 122
Bond character
bond character and structural classification of inorganic carbon compounds based on the band parameters 122
Boron suboxide
synthesis and structure of non-stoichiometric B_6O 91

Cadmium-based cuprates
formation of a new series of 1222 layered cuprates $(Cd,M)Sr_2(Gd,Ce)_2Cu_2O_y$ (M = Ce, Sn, Mo and V) 46
Calorimetry
mixing enthalpy in the molten $NdCl_3$ – $(LiCl–KCl)_{eutectic}$ system 134
standard enthalpies of formation of some 3d transition metal carbides by high temperature reaction calorimetry 227
Carbon compound
bond character and structural classification of inorganic carbon compounds based on the band parameters 122
Chromatography
gas chromatographic separation of H_2–D_2 mixtures by Pd–Pt alloy near room temperature 278
Coercivity
magnetic and microstructural properties of sintered FeNdB-based magnets with W, Mo and Nb additions 273
Constitution analysis
isothermal section at 800°C of the ternary system Tm–Fe–Si 205
Critical current density
flux trapping properties of Bi(Pb)–Sr–Ca–Cu–O superconducting hollow cylinder: the effect of azimuthal flux on flux trapping in the cavity 14
CRTA
structural mechanism of thermal reactions of larderellite 191
Crystal structure
crystal structure and magnetic ordering in $ErFe_6Ge_6$ studied by X-ray, neutron diffraction and magnetic measurements 36
single-crystal structure refinement and luminescence analysis of β-$NaEuF_4$ 65
alkali-metal manganese hydrides: synthesis, structure and magnetic properties 75
synthesis and structure determination of a new series of hydrogen storage alloys; RMg_2Ni_9 (R = La, Ce, Pr, Nd, Sm and Gd) built from $MgNi_2$ Laves-type layers alternating with AB_5 layers 115
hydrogen absorption in R_2Fe_{17} alloys (R = rare earth metals) thermodynamics, structural and magnetic properties 150
crystal chemistry of $NpNi_5$ compound 268
Crystal structure determination
synthesis and structure of non-stoichiometric B_6O 91
crystal structure of the new silicide $Dy_3Fe_2Si_3$ 196
Crystal structures
the phase diagram of the Sc–Au system 224
Crystalline electric field
^{155}Gd and ^{119}Sn Mössbauer effect investigations of GdCuSn and GdAuSn 49
$CsAuSe_3$
on the dissolution of gold in K_2Q_x and Na_2Q_x fluxes (Q = S, Se). Formation of $KAuS_3$, $KAuSe_3$, $CsAuSe_3$, $KAuSe_2$ and $NaAuSe_2$: low-dimensional Au^+ and Au^{3+} compounds with poly- and mono-chalcogenide ligands 137

Decomposition
structural mechanism of thermal reactions of larderellite 191
Decomposition oxygen pressure
decomposition oxygen partial pressures of $Ln_{1-x}Sr_xMnO_3$ (Ln = La, Nd and Dy) 161

Elsevier Science S.A.

Deformation kinetics
hot deformation of nanocrystalline Nd–Fe–B alloys 293
Dense Kondo system
magnetic and transport properties of dense Kondo systems, $CeTSb_2$ (T = Ni, Cu, Pd and Ag) 23
Density
density changes of ytterbium trifluoride on phase transitions 62
Deuterium
gas chromatographic separation of H_2–D_2 mixtures by Pd–Pt alloy near room temperature 278
Diffusion
calorimetric determination of $NiAl_3$-growth kinetics in sputter-deposited Ni/Al diffusion couples 211
Dissolution of gold
on the dissolution of gold in K_2Q_x and Na_2Q_x fluxes (Q = S, Se). Formation of $KAuS_5$, $KAuSe_5$, $CsAuSe_5$, $KAuSe_2$ and $NaAuSe_2$: low-dimensional Au^+ and Au^{3+} compounds with poly- and mono-chalcogenide ligands 137
DTA
the binary system Ni–In 253

Electrical resistivity
magnetic and transport properties of dense Kondo systems, $CeTSb_2$ (T = Ni, Cu, Pd and Ag) 23
electron transport in $Al_{65}Cu_{20}Co_{15-x}Fe_x$ quasicrystals 57
Electron paramagnetic resonance
electron paramagnetic resonance and optical absorption studies on vanadyl doped alkali tetraborate glasses 96
EMPA
the binary system Ni–In 253
Enclathration compounds
the formation of unusually twofold coordinated boron in a sodalite matrix 168
Enthalpy of formation
standard enthalpies of formation of some 3d transition metal carbides by high temperature reaction calorimetry 227
Enthalpy of fusion
artificial neural network method applied to enthalpy of fusion of transition metals 266
Enthalpy of mixing
calorimetric study of ternary liquid Al–La–Ni alloys 234
Europium
single-crystal structure refinement and luminescence analysis of β-$NaEuF_4$ 65
crystal structure and optical properties of Ln(III) octahedral complexes with hexamethylphosphortriamide; $[Ln(HMPA)_6](ClO_4)_3$ 182
EXAFS
tin-containing nasicon-related compounds: a new mixed valence compound, $Sn_{0.5}Sn_2P_3O_{12}$, containing Sn^{4+} and Sn^{2+} and lithium incorporation within $CuSn_2P_3O_{12}$ 201

Fe rich rare earth intermetallics
effects of Mn and Cu doping in $La(T,Al)_{13}$ (T = Fe,Co) on crystal structure and magnetic properties 69
Fluoride
density changes of ytterbium trifluoride on phase transitions 62
single-crystal structure refinement and luminescence analysis of β-$NaEuF_4$ 65
Flux trapping
flux trapping properties of Bi(Pb)–Sr–Ca–Cu–O superconducting hollow cylinder: the effect of azimuthal flux on flux trapping in the cavity 14
Formation of texture
hot deformation of nanocrystalline Nd–Fe–B alloys 293
Fullerene
bond character and structural classification of inorganic carbon compounds based on the band parameters 122

Gamma method
density changes of ytterbium trifluoride on phase transitions 62
Glasses
electron paramagnetic resonance and optical absorption studies on vanadyl doped alkali tetraborate glasses 96
Glassy alloy
a theoretical method for deducing the evolution with time of the fraction crystallized and obtaining the kinetic parameters by DSC, using non-isothermal techniques 259
Gold alloys
the phase diagram of the Sc–Au system 224
Gold-copper-silver alloy
effects of small silver addition to AuCu on the AuCu I ordering process and age-hardening behaviours 306
Growth kinetics
calorimetric determination of $NiAl_3$-growth kinetics in sputter-deposited Ni/Al diffusion couples 211

Heat capacity
calorimetric study of ternary liquid Al–La–Ni alloys 234
Heating rate
a theoretical method for deducing the evolution with time of the fraction crystallized and obtaining the kinetic parameters by DSC, using non-isothermal techniques 259
Hexamethylphosphortriamide
crystal structure and optical properties of Ln(III) octahedral complexes with hexamethylphosphortriamide; $[Ln(HMPA)_6](ClO_4)_3$ 182
High energy ball milling
low-temperature oxidation of ilmenite ($FeTiO_3$) induced by high energy ball milling at room temperature 156
High pressure synthesis
alkali-metal manganese hydrides: synthesis, structure and magnetic properties 75
High-T_c superconductivity
flux trapping properties of Bi(Pb)–Sr–Ca–Cu–O superconducting hollow cylinder: the effect of azimuthal flux on flux trapping in the cavity 14
Holographic material
investigation of the light induced refractive index changes in Fe:PVA 285
Homogeneity range
synthesis and structure of non-stoichiometric B_6O 91
Hot deformation
hot deformation of nanocrystalline Nd–Fe–B alloys 293
Hydrogen
gas chromatographic separation of H_2–D_2 mixtures by Pd–Pt alloy near room temperature 278
Hydrogen absorption mechanism
kinetic properties of the Ti–Ni intermetallic phases and alloys for hydrogen evolution 245
Hydrogen storage alloy
synthesis and structure determination of a new series of hydrogen storage alloys; RMg_2Ni_9 (R = La, Ce, Pr, Nd, Sm and Gd) built from $MgNi_2$ Laves-type layers alternating with AB_5 layers 115

Ilmenite
low-temperature oxidation of ilmenite ($FeTiO_3$) induced by high energy ball milling at room temperature 156
Impedance
kinetic properties of the Ti–Ni intermetallic phases and alloys for hydrogen evolution 245
In alloys
the binary system Ni–In 253
Intermetallic compound
crystal chemistry of $NpNi_5$ compound 268
Intermetallic compounds
the Zr–Au system 215
Internal reactions
structural mechanism of thermal reactions of larderellite 191
Ionicity
bond character and structural classification of inorganic carbon compounds based on the band parameters 122
Iron
isothermal section at 800°C of the ternary system Tm–Fe–Si 205
Isolated metaborate
the formation of unusually twofold coordinated boron in a sodalite matrix 168
Isotope
gas chromatographic separation of H_2–D_2 mixtures by Pd–Pt alloy near room temperature 278

$KAuS_5$
on the dissolution of gold in K_2Q_x and Na_2Q_x fluxes (Q = S, Se). Formation of $KAuS_5$, $KAuSe_5$, $CsAuSe_5$, $KAuSe_2$ and $NaAuSe_2$: low-dimensional Au^+ and Au^{3+} compounds with poly- and mono-chalcogenide ligands 137
$KAuSe_2$
on the dissolution of gold in K_2Q_x and Na_2Q_x fluxes (Q = S, Se). Formation of $KAuS_5$, $KAuSe_5$, $CsAuSe_5$, $KAuSe_2$ and $NaAuSe_2$: low-dimensional Au^+ and Au^{3+} compounds with poly- and mono-chalcogenide ligands 137
$KAuS_5$
on the dissolution of gold in K_2Q_x and Na_2Q_x fluxes (Q = S, Se). Formation of $KAuS_5$, $KAuSe_5$, $CsAuSe_5$, $KAuSe_2$ and $NaAuSe_2$: low-dimensional Au^+ and Au^{3+} compounds with poly- and mono-chalcogenide ligands 137
Kinetic parameters
a theoretical method for deducing the evolution with time of the fraction crystallized and obtaining the kinetic parameters by DSC, using non-isothermal techniques 259
Kinetics
kinetic properties of the Ti–Ni intermetallic phases and alloys for hydrogen evolution 245
the oxidation of uranium–cerium mononitride microspheres 313

Larderellite
structural mechanism of thermal reactions of larderellite 191
LiCl–KCl
mixing enthalpy in the molten $NdCl_3$ – $(LiCl–KCl)_{eutectic}$ system 134
LiGaGe structure
magnetism of ternary stannides RCuSn (R=Gd–Er) 5
Luminescence
single-crystal structure refinement and luminescence analysis of β-$NaEuF_4$ 65
crystal structure and optical properties of Ln(III) octahedral complexes with hexamethylphosphortriamide; $[Ln(HMPA)_6](ClO_4)_3$ 182

Magnetic measurement
magnetic phase diagram of $NdMn_2(Ge_{1-x}Si_x)_2$ system 19
Magnetic properties
structure and magnetic properties of $Sm_2(Fe_{1-x}Co_x)_{16}GaC$ and $Sm_2(Fe_{0.8}Co_{0.2})_{16}GaC_y$ compounds 1
effects of Mn and Cu doping in $La(T,Al)_{13}$ (T = Fe,Co) on crystal structure and magnetic properties 69
hydrogen absorption in R_2Fe_{17} alloys (R = rare earth metals) thermodynamics, structural and magnetic properties 150
Magnetic structure
magnetism of ternary stannides RCuSn (R=Gd–Er) 5
crystal structure and magnetic ordering in $ErFe_6Ge_6$ studied by X-ray, neutron diffraction and magnetic measurements 36
^{155}Gd and ^{119}Sn Mössbauer effect investigations of GdCuSn and GdAuSn 49
Magnetic structures
magnetic properties of the new $TbFeSi_2$-type $NdRhCu_{0.5}Si_{1.5}$ and $PrRhCu_{0.5}Si_{1.5}$ compounds from magnetic measurements and neutron diffraction 30
Magnetic susceptibility
magnetic and transport properties of dense Kondo systems, $CeTSb_2$ (T = Ni, Cu, Pd and Ag) 23
Magnetisation
crystal structure and magnetic ordering in $ErFe_6Ge_6$ studied by X-ray, neutron diffraction and magnetic measurements 36
Magnetoresistance
electron transport in $Al_{65}Cu_{20}Co_{15-x}Fe_x$ quasicrystals 57
Manganese germanides
magnetic phase diagram of $NdMn_2(Ge_{1-x}Si_x)_2$ system 19
MAS NMR
the formation of unusually twofold coordinated boron in a sodalite matrix 168
Mechanochemical
preparation of Ni powder by mechanochemical process 146
Melt
density changes of ytterbium trifluoride on phase transitions 62
Metal hydrides
alkali-metal manganese hydrides: synthesis, structure and magnetic properties 75
hydrogen absorption in R_2Fe_{17} alloys (R = rare earth metals) thermodynamics, structural and magnetic properties 150
kinetic properties of the Ti–Ni intermetallic phases and alloys for hydrogen evolution 245
Metallic conductivity
magnetism of ternary stannides RCuSn (R=Gd–Er) 5
Metallic fuel
mixing enthalpy in the molten $NdCl_3$ – $(LiCl–KCl)_{eutectic}$ system 134
Mg-based alloy
synthesis and structure determination of a new series of hydrogen storage alloys; RMg_2Ni_9 (R = La, Ce, Pr, Nd, Sm and Gd) built from $MgNi_2$ Laves-type layers alternating with AB_5 layers 115
Mixed valence
tin-containing nasicon-related compounds: a new mixed valence compound, $Sn_{0.5}Sn_2P_3O_{12}$, containing Sn^{4+} and Sn^{2+} and lithium incorporation within $CuSn_2P_3O_{12}$ 201
Mixing enthalpy
mixing enthalpy in the molten $NdCl_3$ – $(LiCl–KCl)_{eutectic}$ system 134
Molten salt
mixing enthalpy in the molten $NdCl_3$ – $(LiCl–KCl)_{eutectic}$ system 134

Mössbauer spectroscopy
investigation of the light induced refractive index changes in Fe:PVA 285

$NaAuSe_2$
on the dissolution of gold in K_2Q_x and Na_2Q_x fluxes (Q = S, Se). Formation of $KAuS_2$, $KAuSe_2$, $CsAuSe_2$, $KAuSe_2$ and $NaAuSe_2$: low-dimensional Au^+ and Au^{3+} compounds with poly- and mono-chalcogenide ligands 137

$NdCl_3$
mixing enthalpy in the molten $NdCl_3 - (LiCl-KCl)_{eutectic}$ system 134

Nd-Fe-B
magnetic and microstructural properties of sintered FeNdB-based magnets with W, Mo and Nb additions 273

Nd–Fe–B magnets
hot deformation of nanocrystalline Nd–Fe–B alloys 293

Neodymium
crystal structure and optical properties of Ln(III) octahedral complexes with hexamethylphosphortriamide; $[Ln(HMPA)_6](ClO_4)_3$ 182

Neptunium-based alloy
crystal chemistry of $NpNi_5$ compound 268

Neutron diffraction
crystal structure and magnetic ordering in $ErFe_6Ge_6$ studied by X-ray, neutron diffraction and magnetic measurements 36
alkali-metal manganese hydrides: synthesis, structure and magnetic properties 75

Ni alloys
the binary system Ni–In 253

Ni/Al multilayers
calorimetric determination of $NiAl_3$-growth kinetics in sputter-deposited Ni/Al diffusion couples 211

Nickel
activation behaviour of mechanically Ni-coated Zr-based Laves phase hydride electrode 302

Nickel powder
preparation of Ni powder by mechanochemical process 146

Ni–In binary system
the binary system Ni–In 253

Non-isothermal process
a theoretical method for deducing the evolution with time of the fraction crystallized and obtaining the kinetic parameters by DSC, using non-isothermal techniques 259

Nucleation frequency and crystal growth rate
a theoretical method for deducing the evolution with time of the fraction crystallized and obtaining the kinetic parameters by DSC, using non-isothermal techniques 259

Optical absorption spectrum
electron paramagnetic resonance and optical absorption studies on vanadyl doped alkali tetraborate glasses 96

Optical basicity
electron paramagnetic resonance and optical absorption studies on vanadyl doped alkali tetraborate glasses 96

Ordering
effects of small silver addition to AuCu on the AuCu I ordering process and age-hardening behaviours 306

Oxidation
low-temperature oxidation of ilmenite ($FeTiO_3$) induced by high energy ball milling at room temperature 156
the oxidation of uranium–cerium mononitride microspheres 313

Permanent magnets
magnetic and microstructural properties of sintered FeNdB-based magnets with W, Mo and Nb additions 273

Phase diagram
phase relationships in the system Gd_2O_3–Al_2O_3–SiO_2 104
the Zr–Au system 215
the phase diagram of the Sc–Au system 224
the binary system Ni–In 253

Phase diagrams
ternary chlorides in the systems ACl/$HoCl_3$ (A = Cs, Rb, K) 128

Phosphate
tin-containing nasicon-related compounds: a new mixed valence compound, $Sn_{0.5}Sn_2P_3O_{12}$, containing Sn^{4+} and Sn^{2+} and lithium incorporation within $CuSn_2P_3O_{12}$ 201

Photopolymer
investigation of the light induced refractive index changes in Fe:PVA 285

Preparations from acetic and formic acid
ternary chlorides in the systems ACl/$HoCl_3$ (A = Cs, Rb, K) 128

Quasicrystals
electron transport in $Al_{65}Cu_{20}Co_{15-x}Fe_x$ quasicrystals 57

Rare earth
magnetic phase diagram of $NdMn_2(Ge_{1-x}Si_x)_2$ system 19

Rare earth aluminates
phase relationships in the system Gd_2O_3–Al_2O_3–SiO_2 104

Rare earth basic nitrates
syntheses and crystal structures of some new rare earth basic nitrates II: $[Ln_6O(OH)_8(H_2O)_{12}(NO_3)_6](NO_3)_2 \cdot xH_2O$, Ln = Sm, Dy, Er; x(Sm) = 6, x(Dy) = 5, x(Er) = 4 175

Rare earth copper stannides
magnetism of ternary stannides RCuSn (R=Gd–Er) 5

Rare-earth element based alloys
synthesis and structure determination of a new series of hydrogen storage alloys; RMg_2Ni_9 (R = La, Ce, Pr, Nd, Sm and Gd) built from $MgNi_2$ Laves-type layers alternating with AB_5 layers 115

Rare earth intermetallic compounds
^{155}Gd and ^{119}Sn Mössbauer effect investigations of GdCuSn and GdAuSn 49

Rare earth intermetallics
hydrogen absorption in R_2Fe_{17} alloys (R = rare earth metals) thermodynamics, structural and magnetic properties 150

Rare earth–iron alloys
hydrogen absorption in R_2Fe_{17} alloys (R = rare earth metals) thermodynamics, structural and magnetic properties 150

Rare earth iron germanide
crystal structure and magnetic ordering in $ErFe_6Ge_6$ studied by X-ray, neutron diffraction and magnetic measurements 36

Rare earth iron silicides
crystal structure of the new silicide $Dy_3Fe_2Si_3$ 196

Rare earth rhodium silicides
magnetic properties of the new $TbFeSi_2$-type $NdRhCu_{0.5}Si_{1.5}$ and $PrRhCu_{0.5}Si_{1.5}$ compounds from magnetic measurements and neutron diffraction 30

Rare earth silicates
phase relationships in the system Gd_2O_3–Al_2O_3–SiO_2 104

Reduction
preparation of Ni powder by mechanochemical process 146

Remanence
magnetic and microstructural properties of sintered FeNdB-based magnets with W, Mo and Nb additions 273

Reprocessing
mixing enthalpy in the molten $NdCl_3$ – $(LiCl–KCl)_{eutectic}$ system 134
$RTSb_2$ (R = La and Ce: T = Ni, Cu, Pd and Ag)
magnetic and transport properties of dense Kondo systems, $CeTSb_2$ (T = Ni, Cu, Pd and Ag) 23

Scandium alloys
the phase diagram of the Sc–Au system 224
Separation
gas chromatographic separation of H_2–D_2 mixtures by Pd–Pt alloy near room temperature 278
Silicon
isothermal section at 800°C of the ternary system Tm–Fe–Si 205
Single crystal
crystal structure of the new silicide $Dy_3Fe_2Si_3$ 196
Single crystals
syntheses and crystal structures of some new rare earth basic nitrates II: $[Ln_6O(OH)_8(H_2O)_{12}(NO_3)_6](NO_3)_2 \cdot xH_2O$, Ln = Sm, Dy, Er; x(Sm) = 6, x(Dy) = 5, x(Er) = 4 175
Sintering
magnetic and microstructural properties of sintered FeNdB-based magnets with W, Mo and Nb additions 273
$Sm_2(Fe_{1-x}Co_x)_{16}GaC_y$ compounds
structure and magnetic properties of $Sm_2(Fe_{1-x}Co_x)_{16}GaC$ and $Sm_2(Fe_{0.8}Co_{0.2})_{16}GaC_y$ compounds 1
Sodium
single-crystal structure refinement and luminescence analysis of β-$NaEuF_4$ 65
Solid
density changes of ytterbium trifluoride on phase transitions 62
Specific heat
magnetic and transport properties of dense Kondo systems, $CeTSb_2$ (T = Ni, Cu, Pd and Ag) 23
Spectroscopy
crystal structure and optical properties of Ln(III) octahedral complexes with hexamethylphosphortriamide; $[Ln(HMPA)_6](ClO_4)_3$ 182
Spin structure
alkali-metal manganese hydrides: synthesis, structure and magnetic properties 75
Standard Gibbs energy change
decomposition oxygen partial pressures of $Ln_{1-x}Sr_xMnO_3$ (Ln = La, Nd and Dy) 161
Strontium doped rare earth manganites
decomposition oxygen partial pressures of $Ln_{1-x}Sr_xMnO_3$ (Ln = La, Nd and Dy) 161
Structural classification
bond character and structural classification of inorganic carbon compounds based on the band parameters 122
Structure
structure and magnetic properties of $Sm_2(Fe_{1-x}Co_x)_{16}GaC$ and $Sm_2(Fe_{0.8}Co_{0.2})_{16}GaC_y$ compounds 1
1222 Structure
formation of a new series of 1222 layered cuprates $(Cd,M)Sr_2(Gd,Ce)_2Cu_2O_y$ (M = Ce, Sn, Mo and V) 46
Structure determination
syntheses and crystal structures of some new rare earth basic nitrates II: $[Ln_6O(OH)_8(H_2O)_{12}(NO_3)_6](NO_3)_2 \cdot xH_2O$, Ln = Sm, Dy, Er; x(Sm) = 6, x(Dy) = 5, x(Er) = 4 175
Synthesis
synthesis and structure of non-stoichiometric B_6O 91
System gadolinium oxide–alumina–silica
phase relationships in the system Gd_2O_3–Al_2O_3–SiO_2 104
Systems rare earth–alumina–silica
phase relationships in the system Gd_2O_3–Al_2O_3–SiO_2 104

$TbFeSi_2$-type structure
magnetic properties of the new $TbFeSi_2$-type $NdRhCu_{0.5}Si_{1.5}$ and $PrRhCu_{0.5}Si_{1.5}$ compounds from magnetic measurements and neutron diffraction 30
Ternary holmium chlorides
ternary chlorides in the systems ACl/$HoCl_3$ (A = Cs, Rb, K) 128
Ternary La aluminides
effects of Mn and Cu doping in $La(T,Al)_{13}$ (T = Fe,Co) on crystal structure and magnetic properties 69
Ternary phase diagram
isothermal section at 800°C of the ternary system Tm–Fe–Si 205
Thermodynamic properties
ternary chlorides in the systems ACl/$HoCl_3$ (A = Cs, Rb, K) 128
Thermodynamics
standard enthalpies of formation of some 3d transition metal carbides by high temperature reaction calorimetry 227
Thulium
isothermal section at 800°C of the ternary system Tm–Fe–Si 205
Tin
tin-containing nasicon-related compounds: a new mixed valence compound, $Sn_{0.5}Sn_2P_3O_{12}$, containing Sn^{4+} and Sn^{2+} and lithium incorporation within $CuSn_2P_3O_{12}$ 201
Transition metal
artificial neural network method applied to enthalpy of fusion of transition metals 266
Transition metal carbides
standard enthalpies of formation of some 3d transition metal carbides by high temperature reaction calorimetry 227
Twin
effects of small silver addition to AuCu on the AuCu I ordering process and age-hardening behaviours 306

(U,Ce)N
the oxidation of uranium–cerium mononitride microspheres 313
UN
the oxidation of uranium–cerium mononitride microspheres 313

Vanadyl ions
electron paramagnetic resonance and optical absorption studies on vanadyl doped alkali tetraborate glasses 96
Vibronic coupling
crystal structure and optical properties of Ln(III) octahedral complexes with hexamethylphosphortriamide; $[Ln(HMPA)_6](ClO_4)_3$ 182

Weak localization
electron transport in $Al_{65}Cu_{20}Co_{15-x}Fe_x$ quasicrystals 57

X-Ray diffraction
magnetic phase diagram of $NdMn_2(Ge_{1-x}Si_x)_2$ system 19
synthesis and structure determination of a new series of hydrogen storage alloys; RMg_2Ni_9 (R = La, Ce, Pr, Nd, Sm and Gd) built from $MgNi_2$ Laves-type layers alternating with AB_5 layers 116
crystal chemistry of $NpNi_5$ compound 268

XRD
tin-containing nasicon-related compounds: a new mixed valence compound, $Sn_{0.5}Sn_2P_3O_{12}$, containing Sn^{4+} and Sn^{2+} and lithium incorporation within $CuSn_2P_3O_{12}$ 201
the binary system Ni–In 252

Zr-Au alloys
the Zr–Au system 215

Zr-based Laves phase
activation behaviour of mechanically Ni-coated Zr-based Laves phase hydride electrode 302